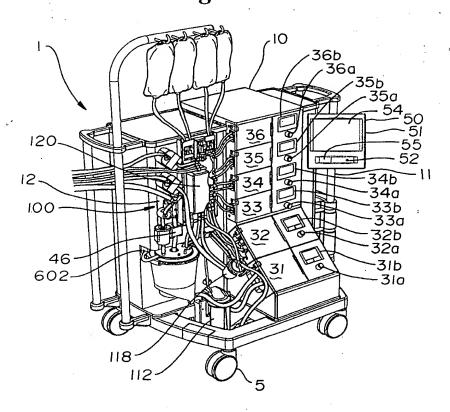
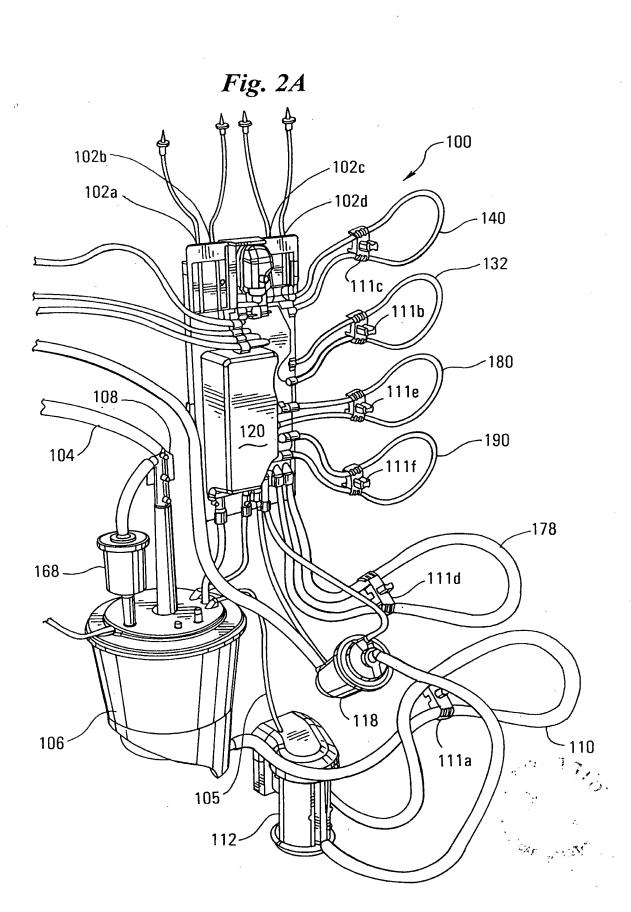
் வாழ் நார் ம Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

Telephone: (612) 334-8992

Fig. 1



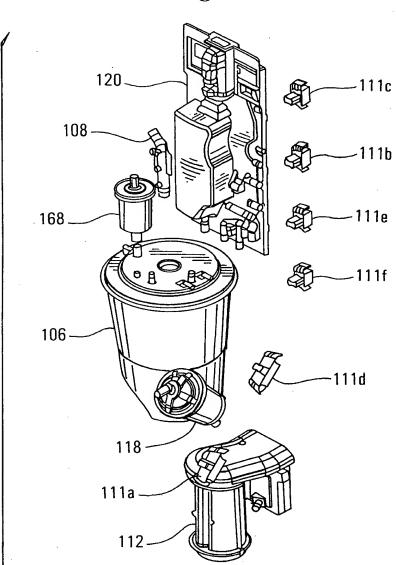
SATELL 2/10
Serial No. 09/963,878
Applicant: Bruce Ellingboe et al.
Attorney Docket: CV0290US



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Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992





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Sheer 4/10 Serial No. 09/963,878

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Fig.3A

Fig.3A-1	Fig.3A-2
Fig.3A-3	Fig.3A-4

Fig.3B

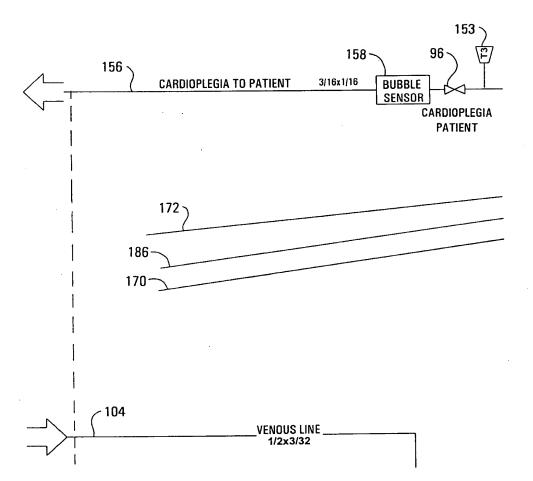
Fig.3B-1	Fig.3B-2
Fig.3B-3	Fig.3B-4

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Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

Fig.3A-1

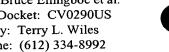
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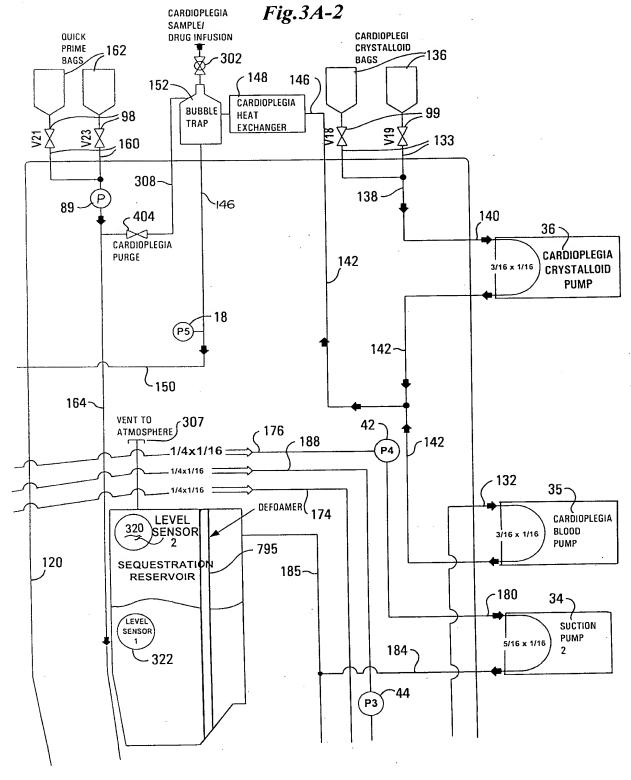


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Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

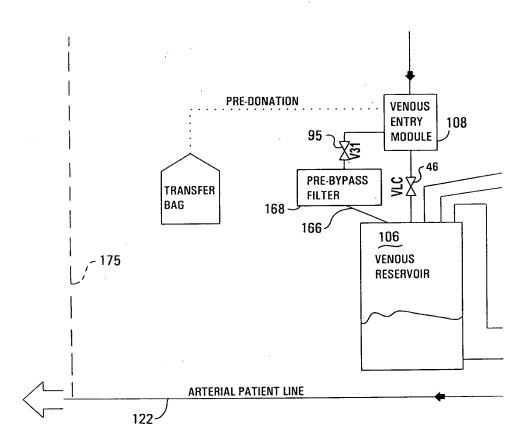




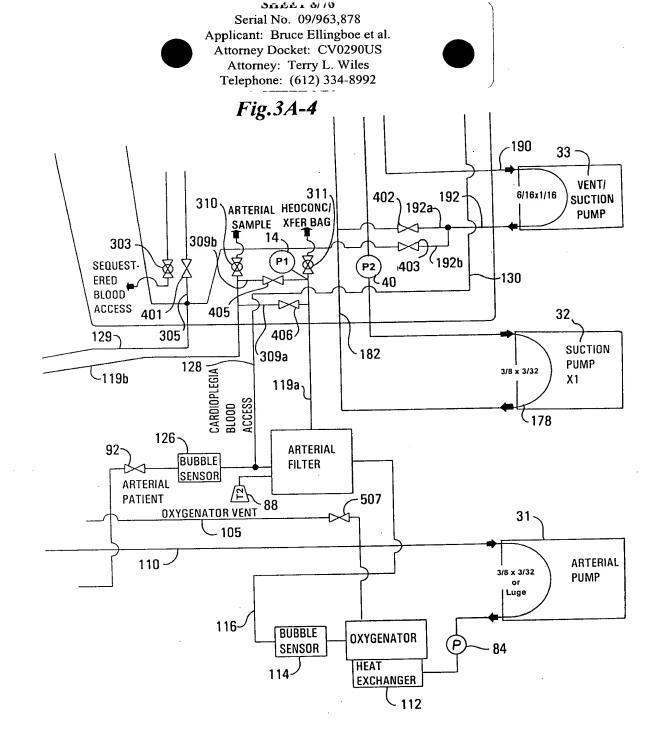


SHEET ///0 Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

Fig.3A-3



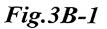


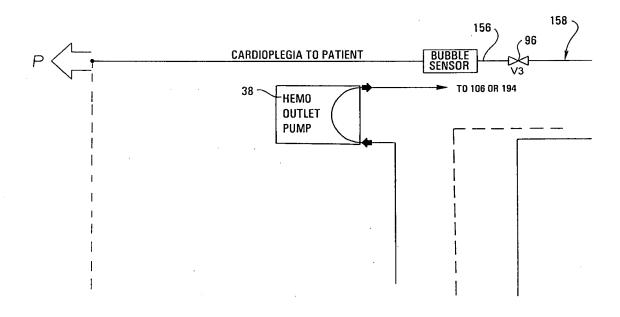




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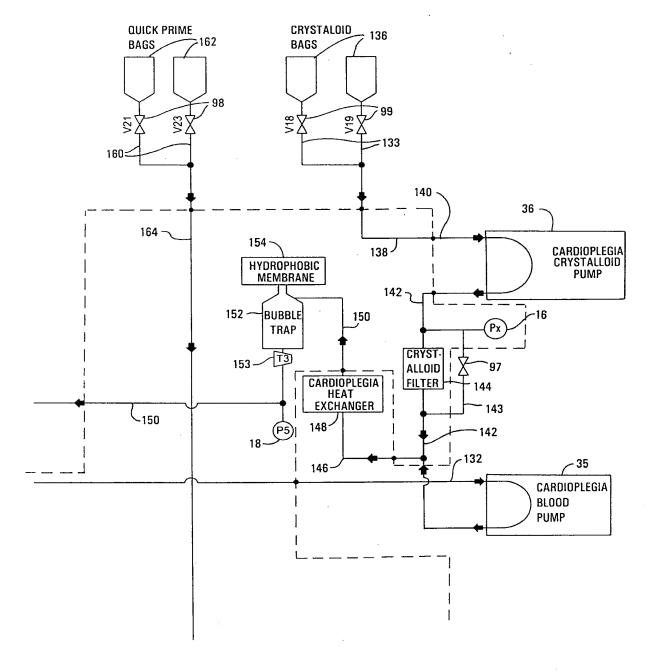


Serial No. 09/963,878

Applicant: Bruce Ellingboe et al.

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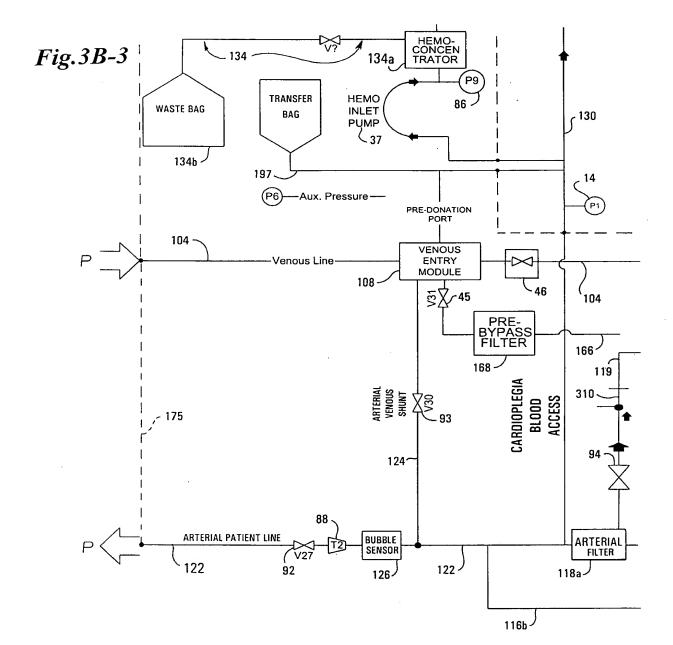
Fig.3B-2





Serial No. 09/963,878

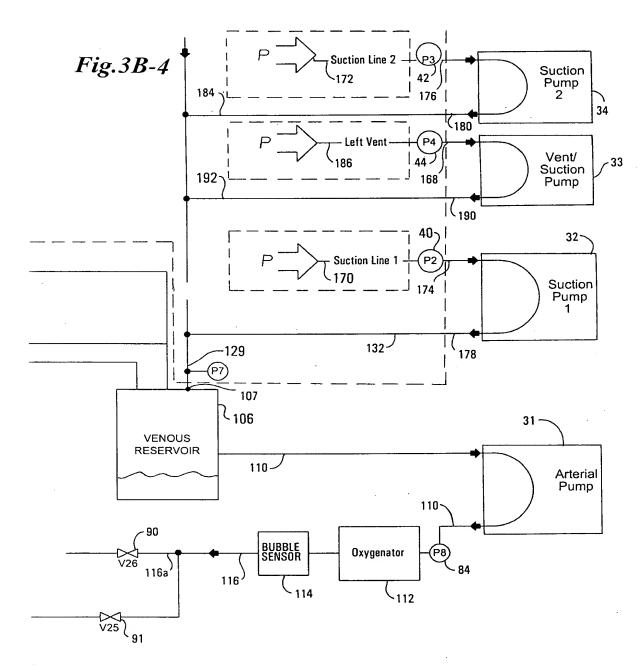
Applicant: Bruce Ellingboe et al.
Attorney Docket: CV0290US
Attorney: Terry L. Wiles





Sದಾವರ 14/10 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al.
Attorney Docket: CV0290US
Attorney: Terry L. Wiles

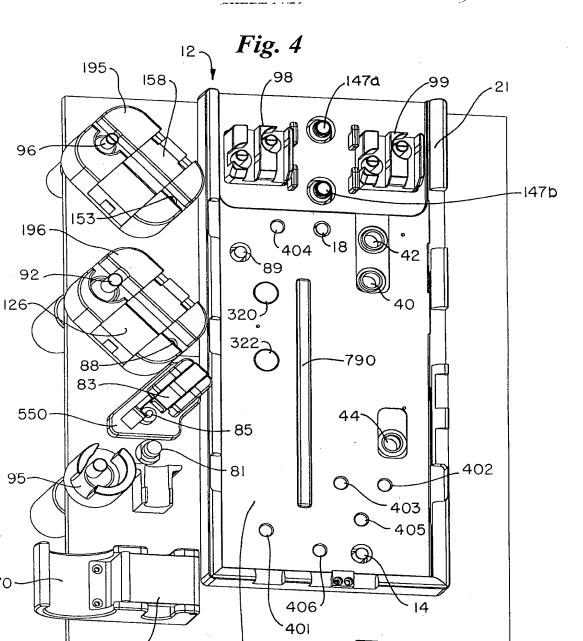




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Applicant: Bruce Ellingboe et al.
Attorney Docket: CV0290US
Attorney: Terry L. Wiles

Attorney: Terry L. Wiles Telephone: (612) 334-8992



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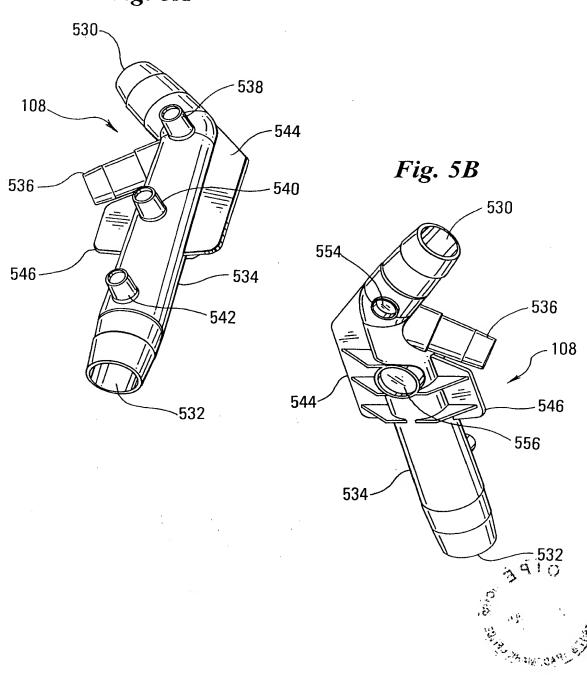
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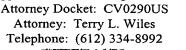
SHEET 14//6
Serial No. 09/963,878
Applicant: Bruce Ellingboe et al.
Attorney Docket: CV0290US

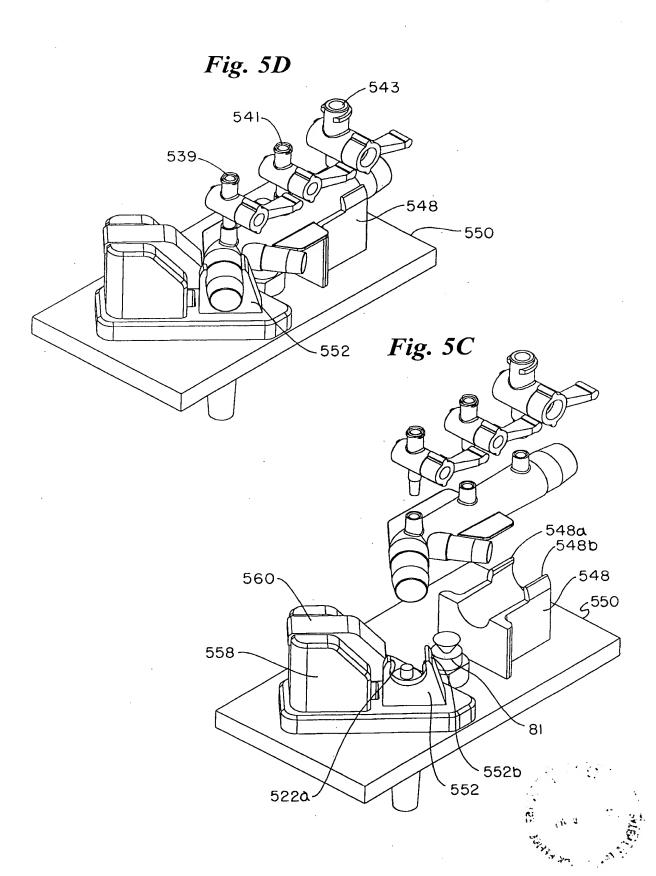
Fig. 5A



SHEET 15/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US





SHEET 16/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

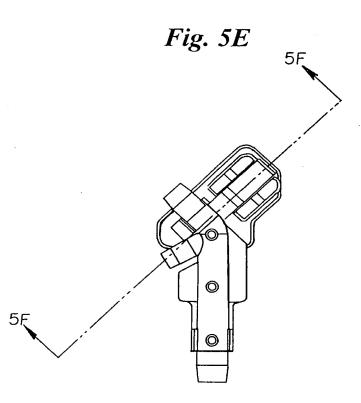
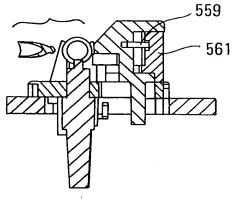


Fig. 5F





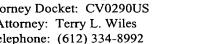
Serial No. 09/963,878

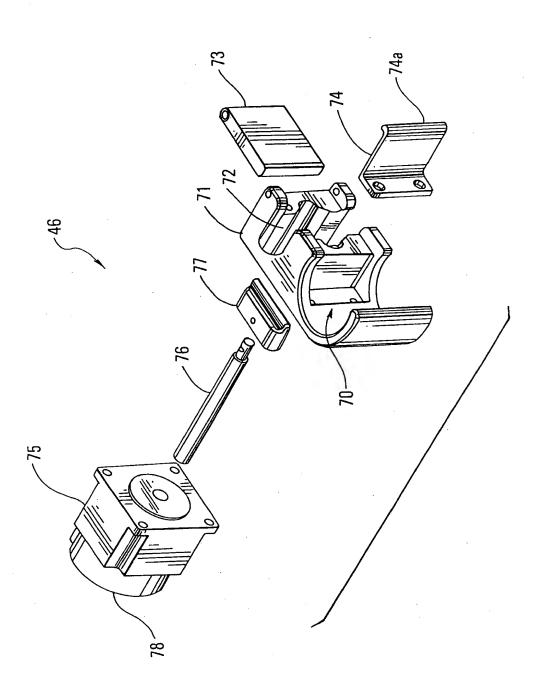
Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US

Attorney: Terry L. Wiles

Telephone: (612) 334-8992





SHEET 18/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

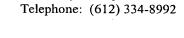
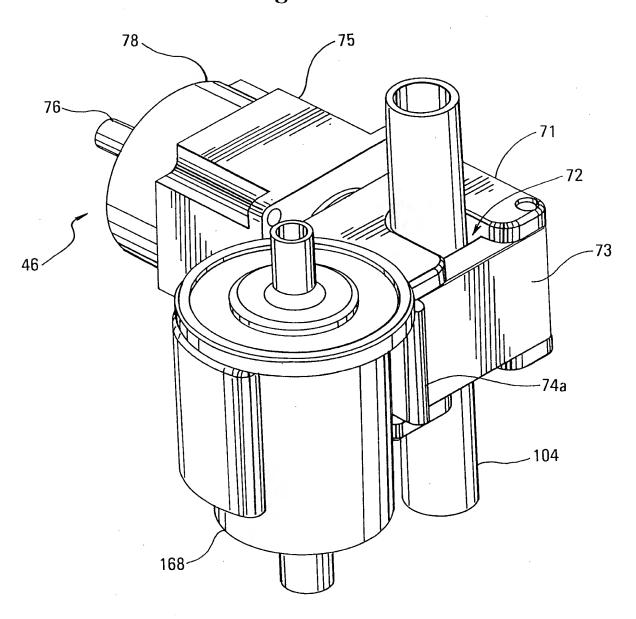


Fig. 6B





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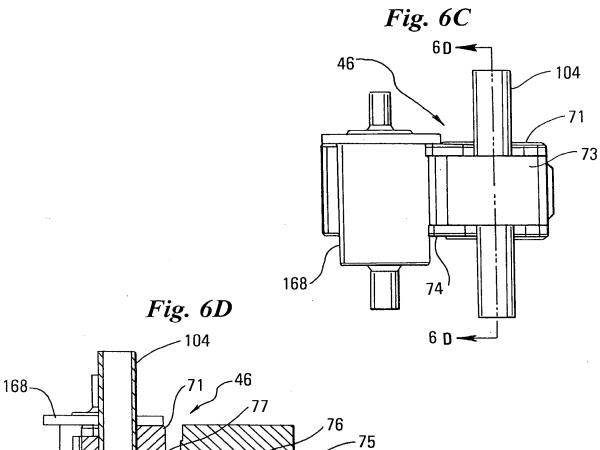


Fig. 6E 46 **75** 168 78 74a -76 71-104-72 73 Same Carlo

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Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

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Fig. 7A

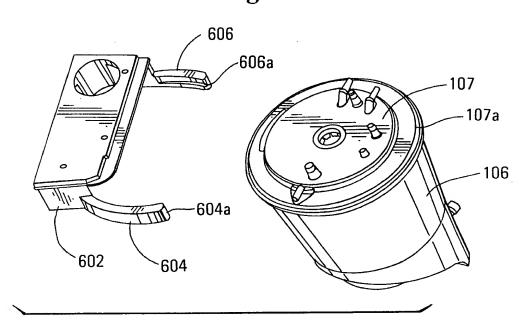
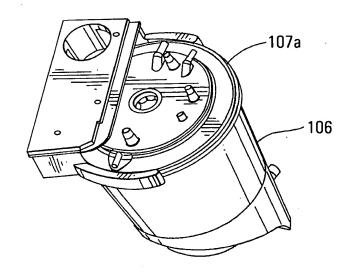


Fig. 7B

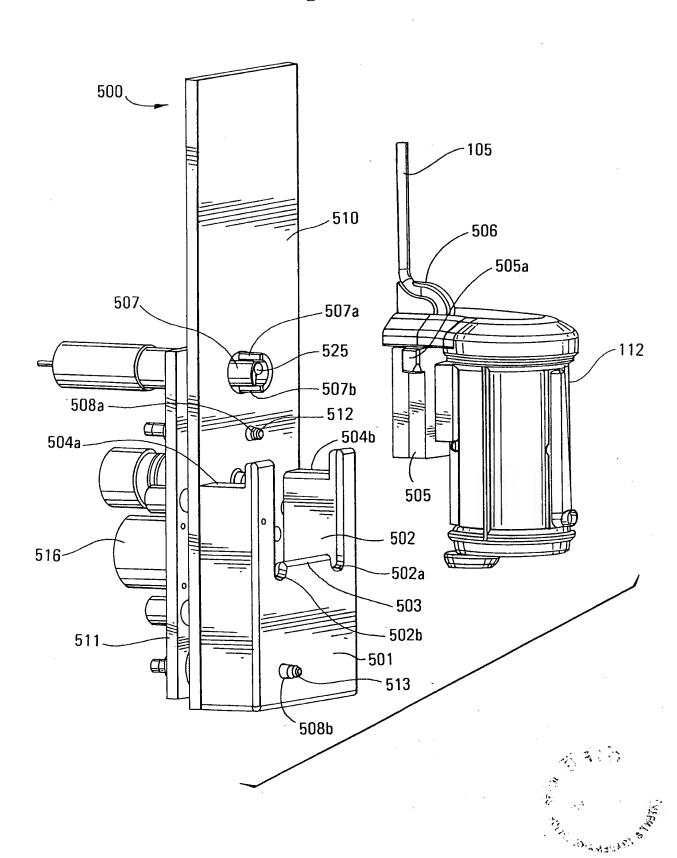




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Applicant: Bruce Ellingboe et al.

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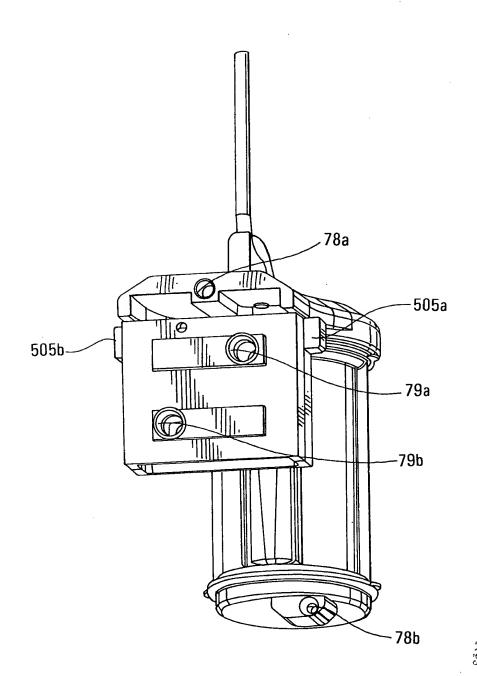
Fig. 8A



Spile 22/16
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Attorney: Terry L. Wiles

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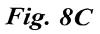
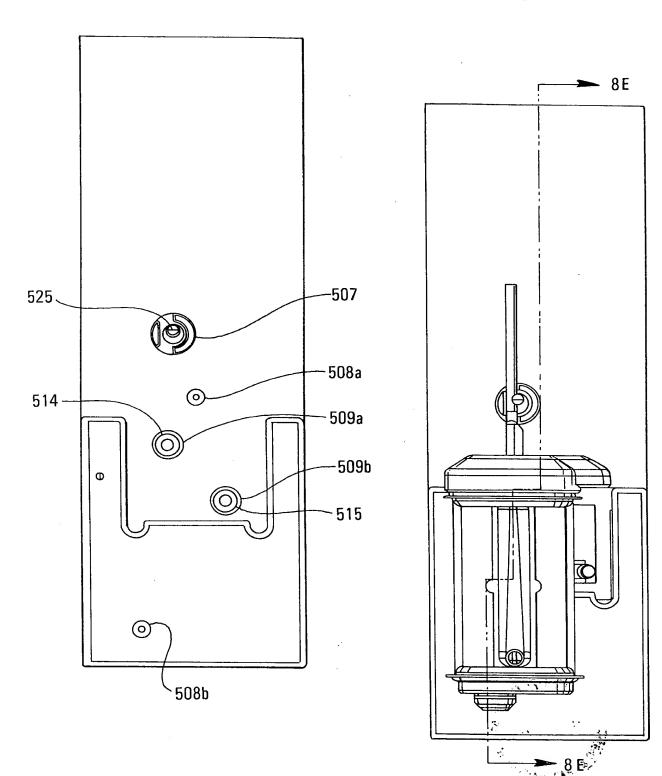


Fig. 8D

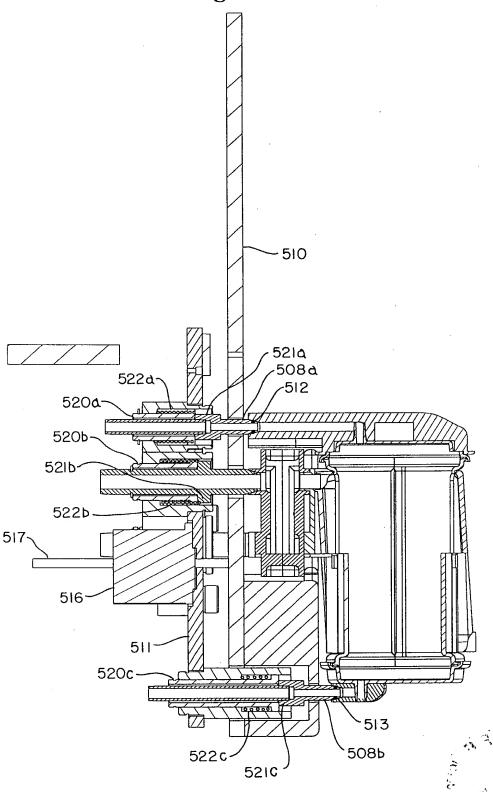


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Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

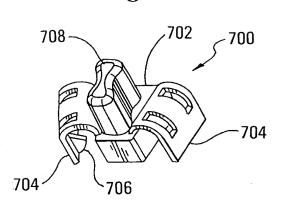




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Attorney: Terry L. Wiles
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Fig. 9A



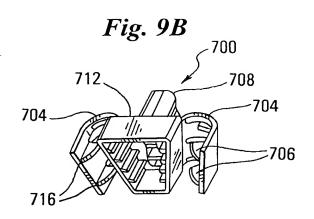
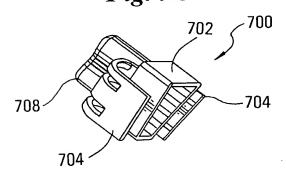


Fig. 9C



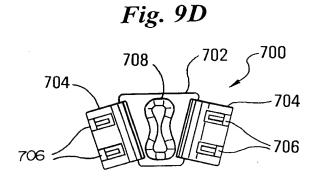


Fig. 9E

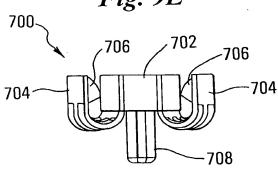
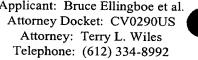
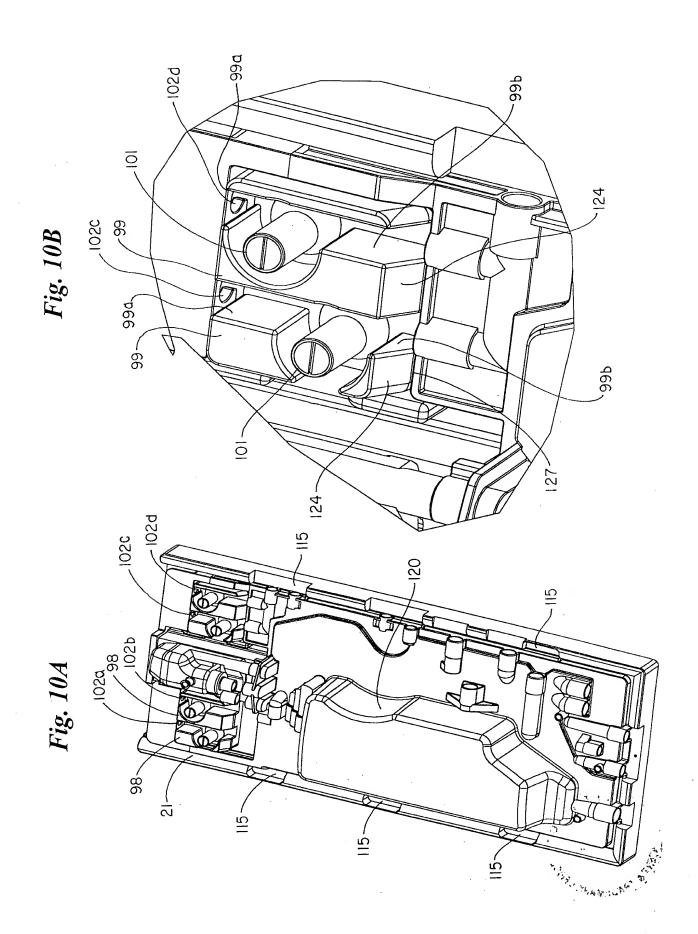


Fig. 9F
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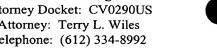
Serial No. 09/963,878 Applicant: Bruce Ellingboe et al.

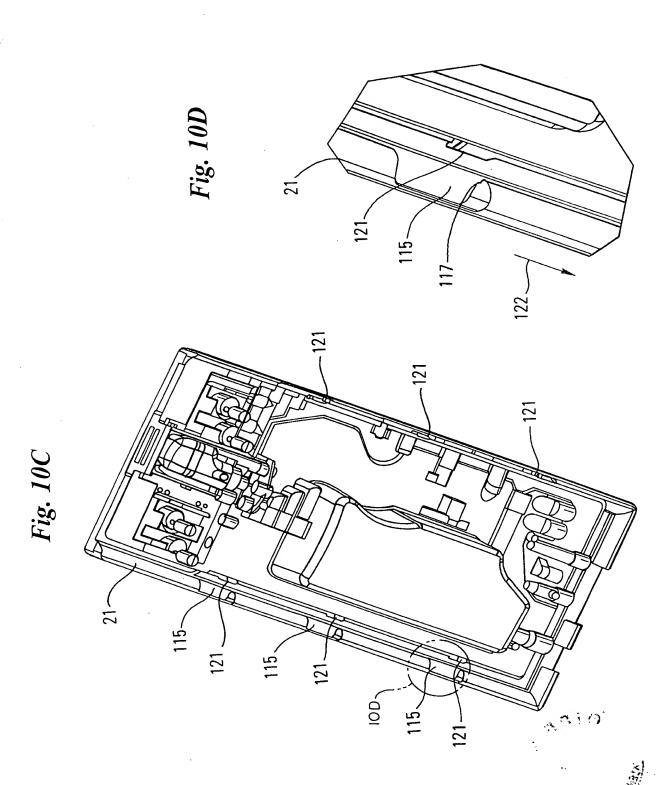




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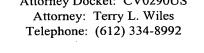


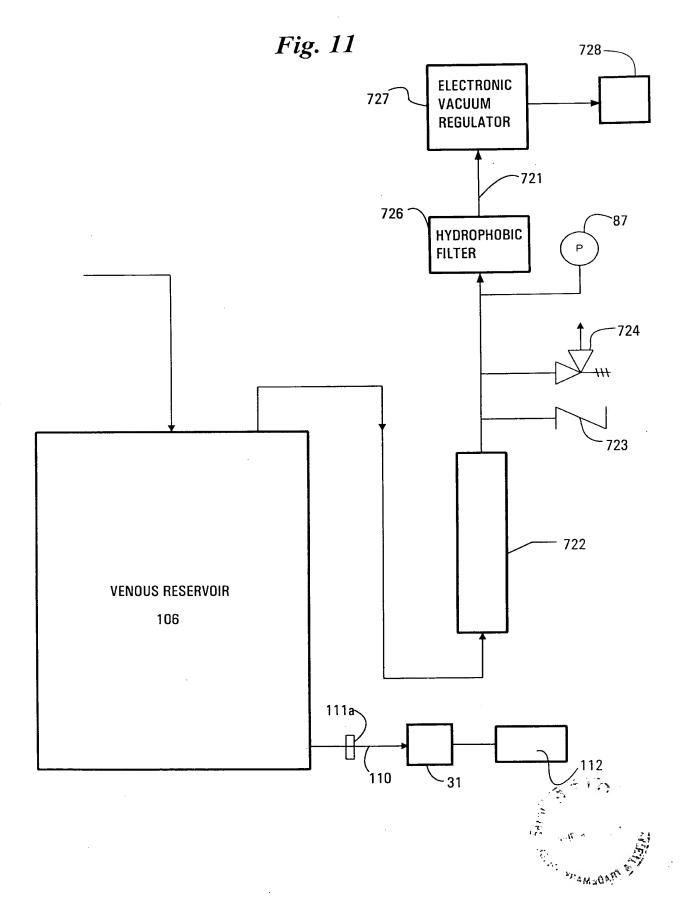
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Serial No. 09/963,878
Applicant: Bruce Ellingboe et al.
Attorney Docket: CV0290US



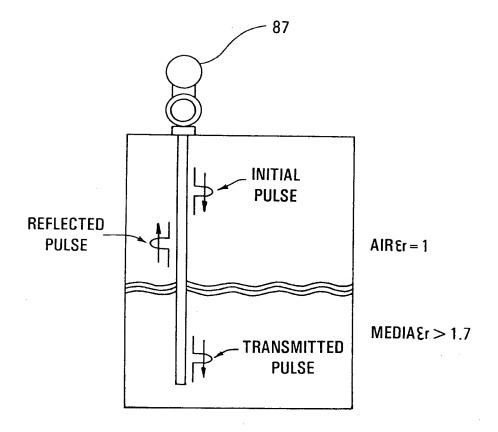




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Applicant: Bruce Ellingboe et al Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

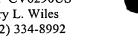
Fig. 12



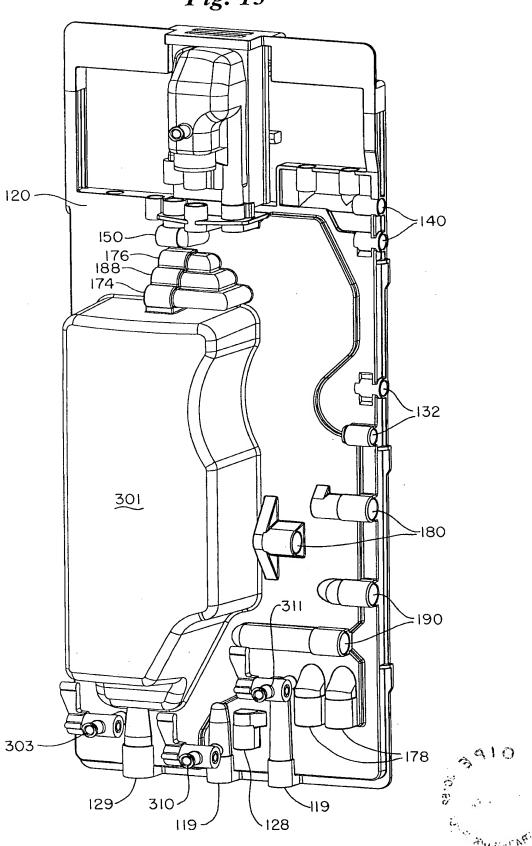
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Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

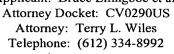


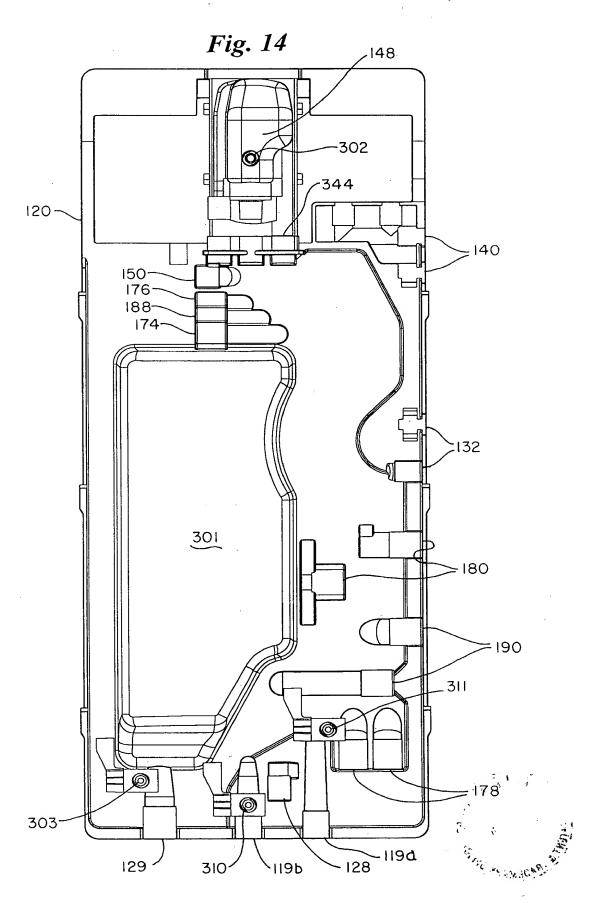




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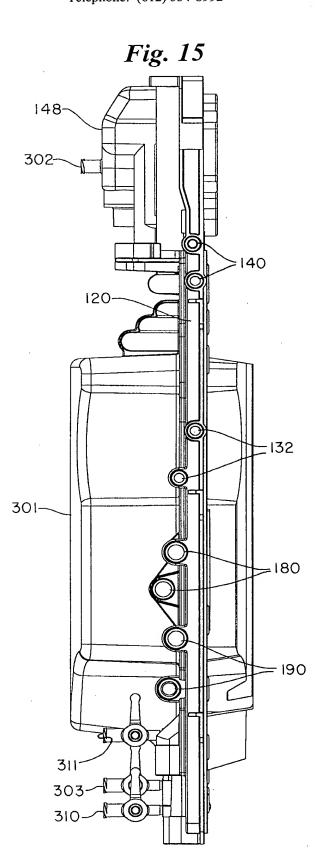
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Serial No. 09/963,878
Applicant: Bruce Ellingboe et al.

ttorney Docket: CV0290US
Attorney: Terry L. Wiles
Telephone: (612) 334-8992

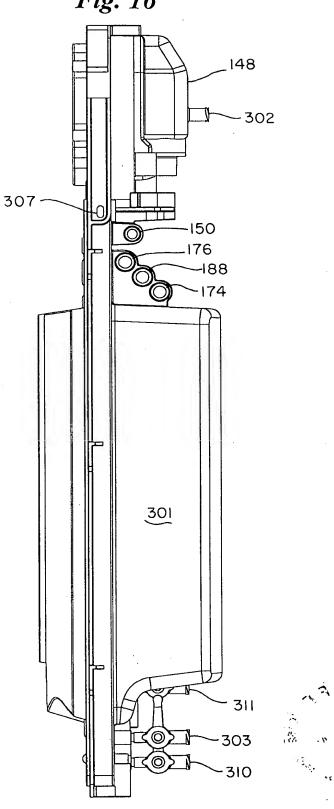




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Attorney Docket: CV0290US
Attorney: Terry L. Wiles
Telephone: (612) 334-8992

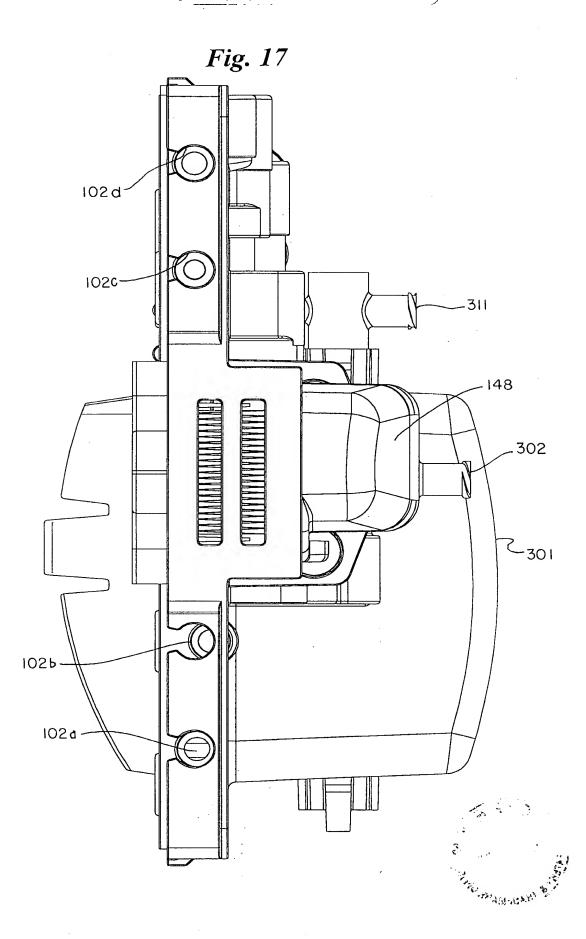




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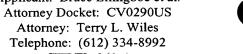
Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

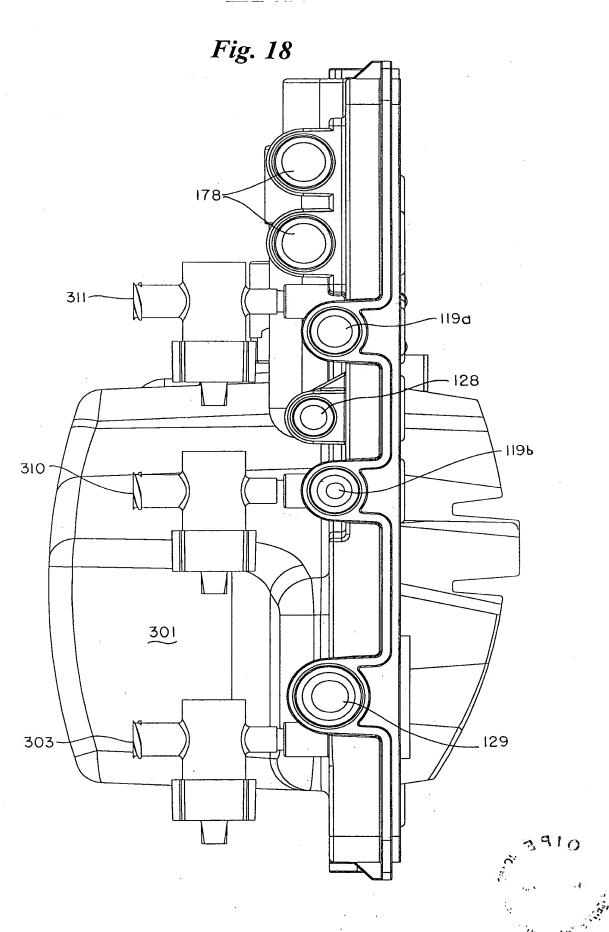




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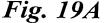
Applicant: Bruce Ellingboe et al.

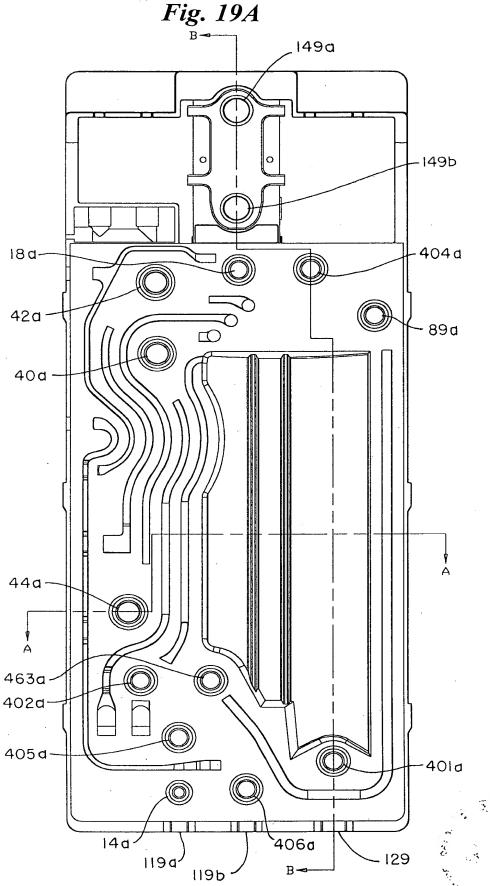




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Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US



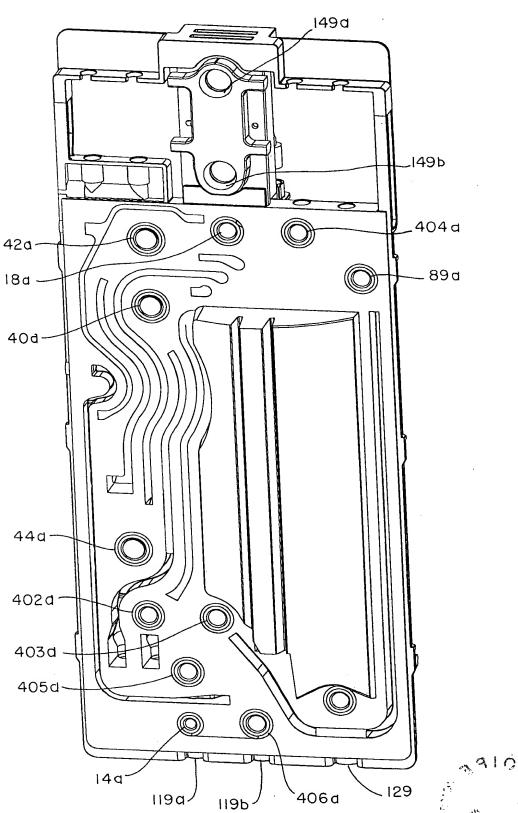


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Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

Attorney: Terry L. Wiles Telephone: (612) 334-8992

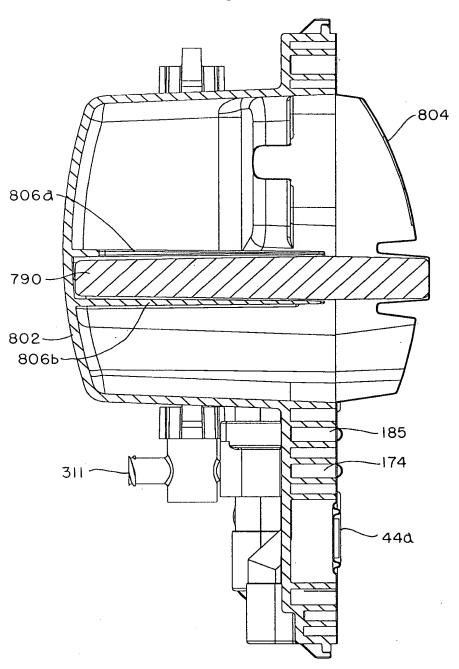
Fig. 19B



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Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

Fig. 20A

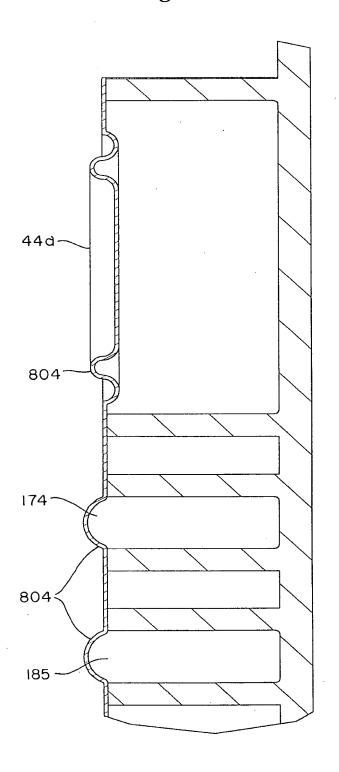




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Fig. 20B

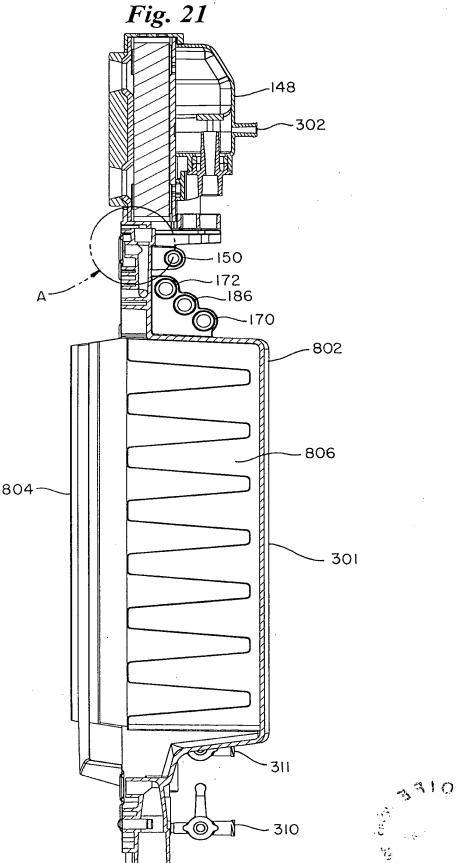


SHEET 40/70 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US
Attorney: Terry L. Wiles

Telephone: (612) 334-8992

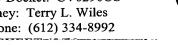


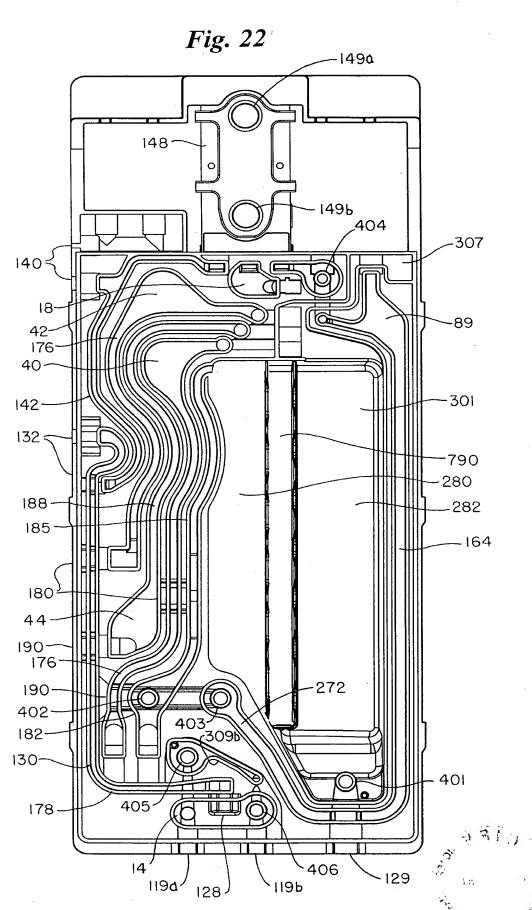


SHEET 41776 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

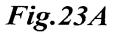
Attorney: Terry L. Wiles Telephone: (612) 334-8992

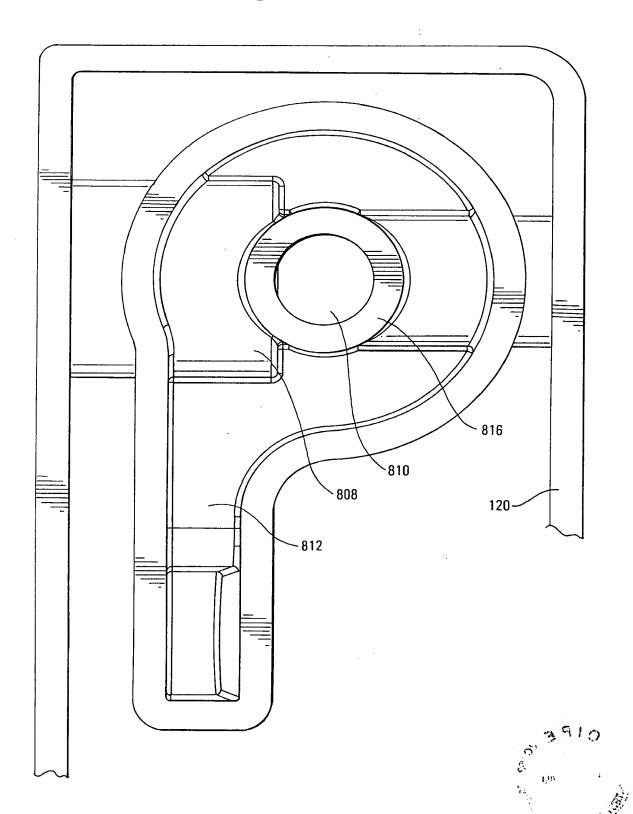




Serial No. 09/963,878 Applicant: Bruce Ellingboe e

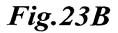
Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

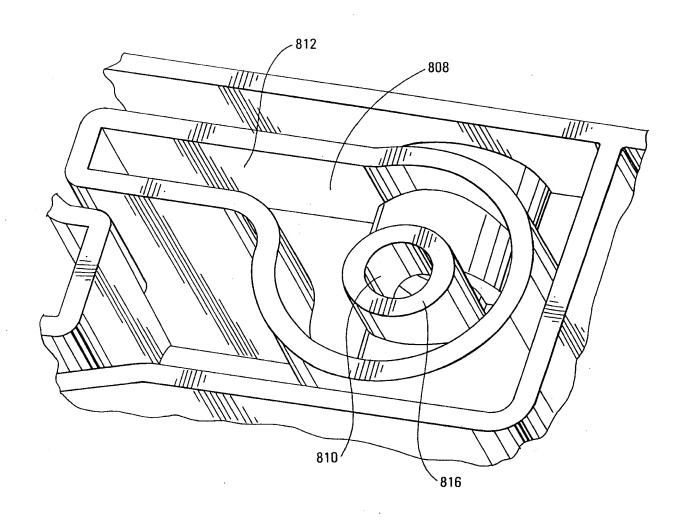




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Attorney: Terry L. Wiles
Telephone: (612) 334-8992





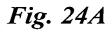


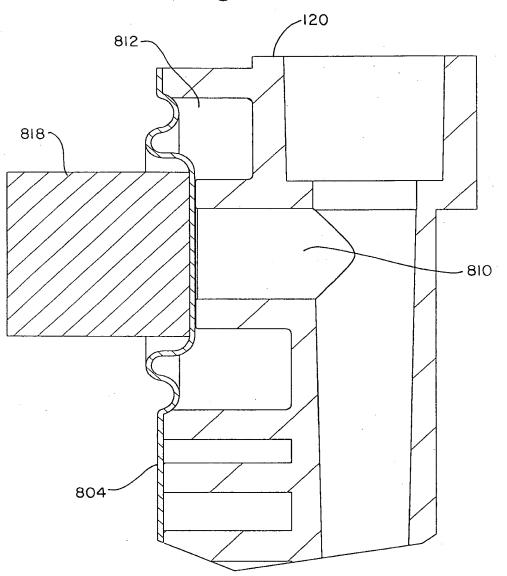
Serial No. 09/963,878

Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US

Attorney: Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992



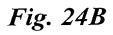


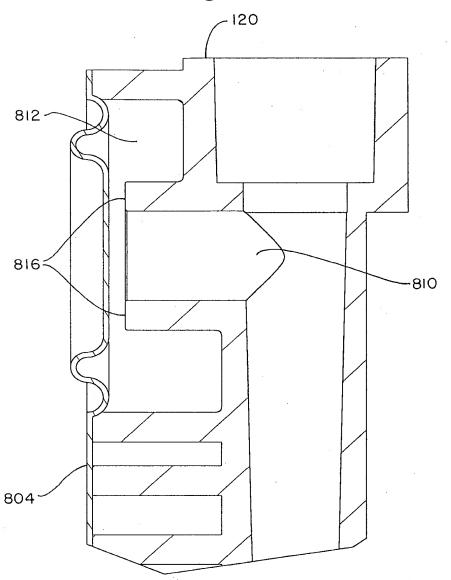


Serial No. 09/963,878

Serial Bruce Ellingboe et

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

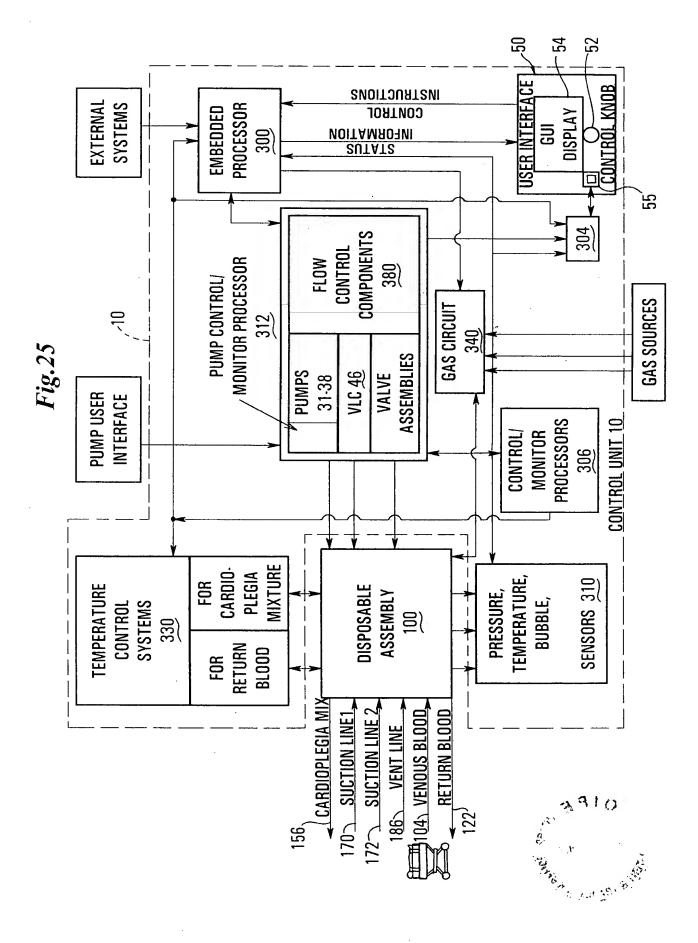






Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

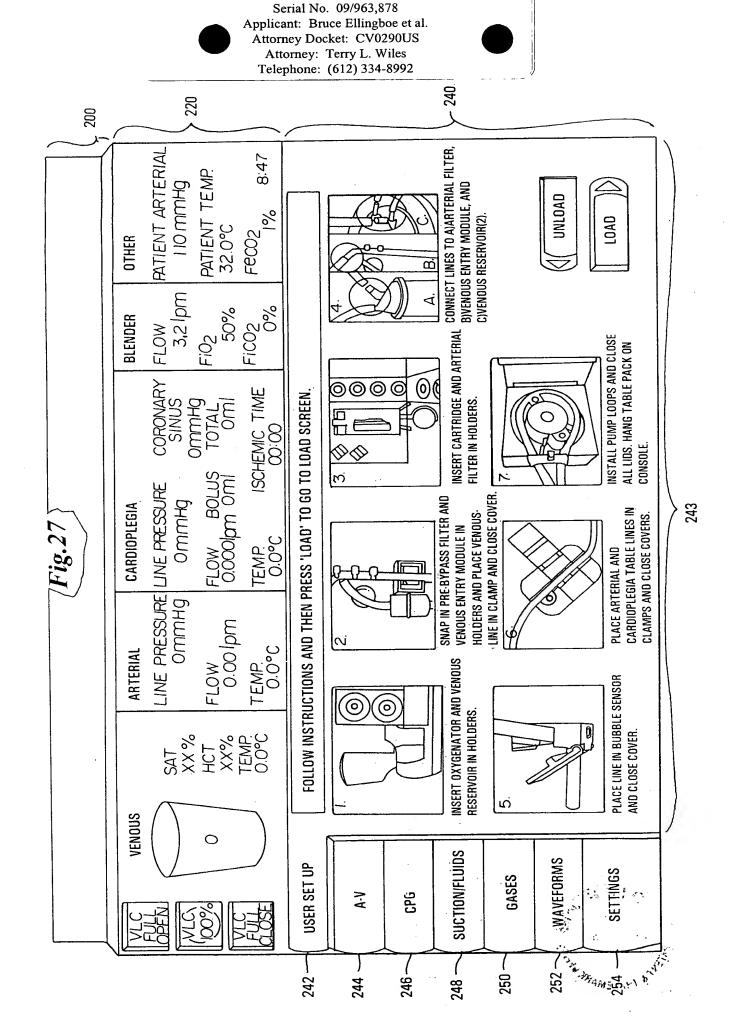
Telephone: (612) 334-8992



Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992 SOURCE SOURCE SOURCE 5%C02 95%02 342c\ 342a 02 FILTER 344b FILTER ⁽344a FILTER 344c) -346a REGULATOR REGULATOR REGULATOR -346c **PRESSURE PRESSURE PRESSURE** GAS CONCENTRATION -354c DRYER CROSS FLOW MONITORING 346b OPTIONAL SYSTEM FLOW METER FLOW METER 350 CHECK VALVE 5%C02 95%02 354b .348c RESTRICTOR FLOW **VALVE MANIFOLD** 352d 348b L .348a 352b SAMPLING -364 PUMP 368b-FLOW METER TOTAL FLOW 356 OXYGENATOR Fig. 26 MONITOR 02/002 DRYER 112 VAPORIZER (OPTIONAL) -358 SAMPLING PUMP 368a/ ~360 366 DETECTOR FILTER LIQUID LEAK 340-SCAVANGE LINE 25.5

12.14

அமைப்பட்ட 47770

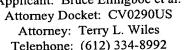


Speck 1 48/10

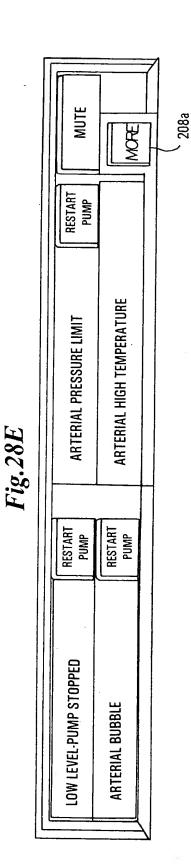
Sriel 1 49/16
Serial No. 09/963,878
Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992 group group gross grow many group are year of that it than and that the trail that at that the trail that at that green many many green green green It would man! then II I man! It was the man! then II man! Fig. 28C Fig. 28A -202b" .202c" -202a" RESTART PUMP ENABLE STOP ' OLEVEL OK-PUMP STOP DISABLED LOW LEVEL-PUMP STOPPED LOW LEVEL-PUMP ON 202a' 202b 202a

SHEET 50/76 Serial No. 09/963,878 Applicant: Bruce Ellingboe et al.

Attorney: Terry L. Wiles Telephone: (612) 334-8992



MUTE RESTART PUMP **ARTERIAL HIGH TEMPERATURE** LOW LEVEL: PUMP SLOWING Fig. 28D RESTART PUMP CLEAR ARTERIAL PRESSURE HIGH. PUMP ARTERIAL BUBBLE-PUMP STOPPED STOPPED



SHEET 51/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

Attorney: Terry L. Wiles

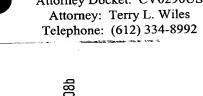
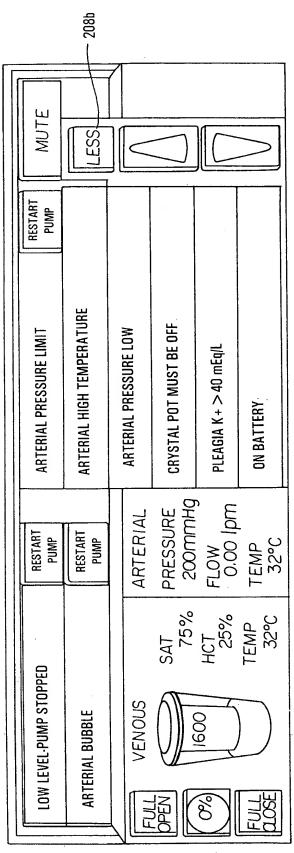


Fig. 28F



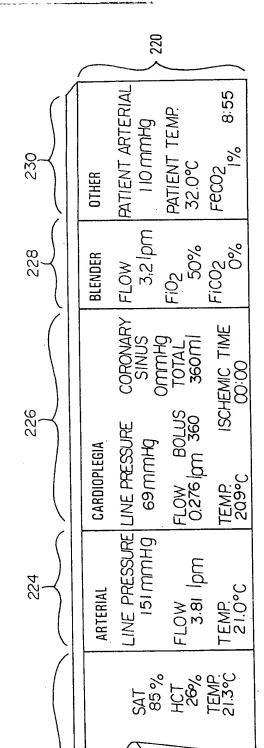
10188 42 K

SHEET 52/76

Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

Telephone: (612) 334-8992



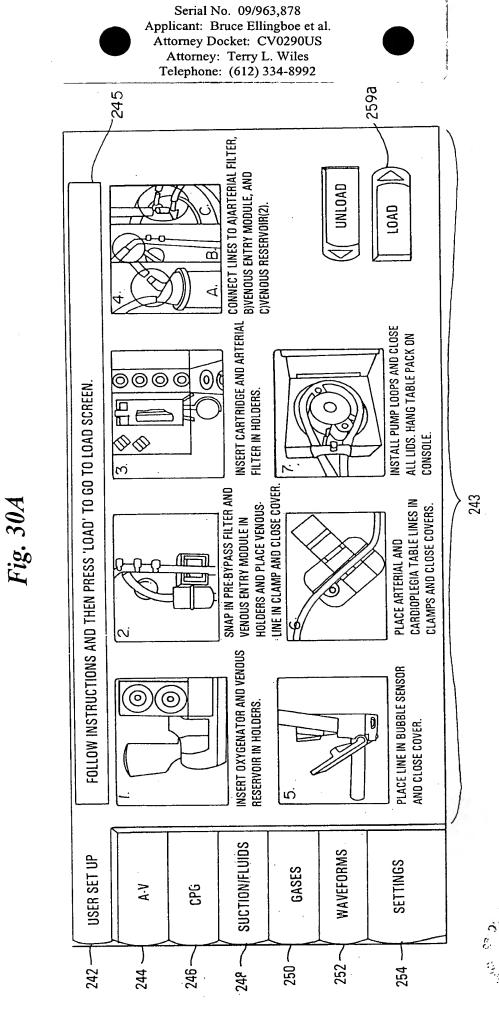
VENDUS

0

222



Fig. 29



910

SHEET 53/76

SHELI 54/76 Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

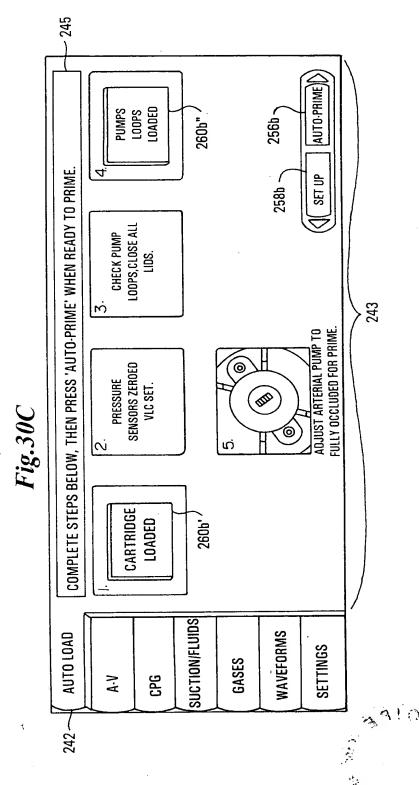
Attorney: Terry L. Wiles Telephone: (612) 334-8992

245 AUTO-PRIME) LOAD PUMP LOOPS 260b" 256b. 4 258b. PRESS 'LOAD CARTRIDGE AND OXYGENATOR' TO AUTOMATICALLY LOAD CARTRIDGE CHECK PUMP LOOPS,CLOSE ALL LIDS. 243 ADJUST ARTERIAL PUMP TO FULLY OCCLUDED FOR PRIME. PRESSURE SENSORS ZEROED VLC SET. (e) MI **o** AND DXYGENATOR INTO SYSTEM. AND OXYGENATOR LOAD Cartridge ~260b° SUCTION/FLUIDS **AUTO LOAD** WAVEFORMS SETTINGS GASES CPG A.V

Fig.30B

SHEET 55/10

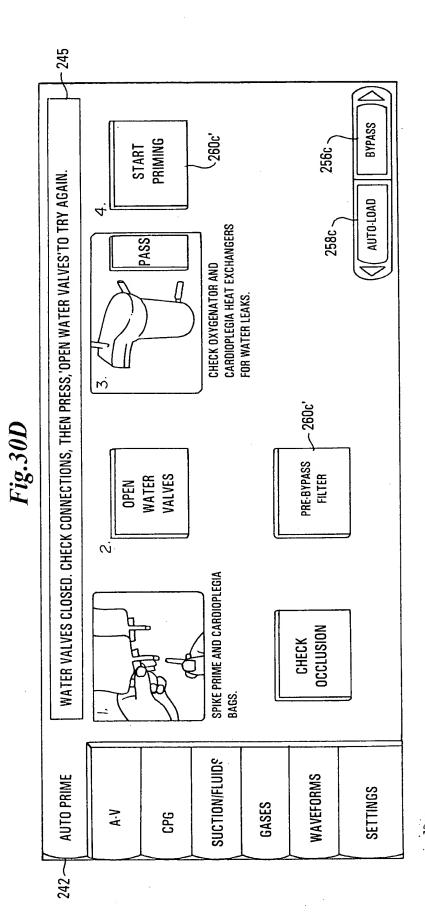
Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992



SHEET 56/76

Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

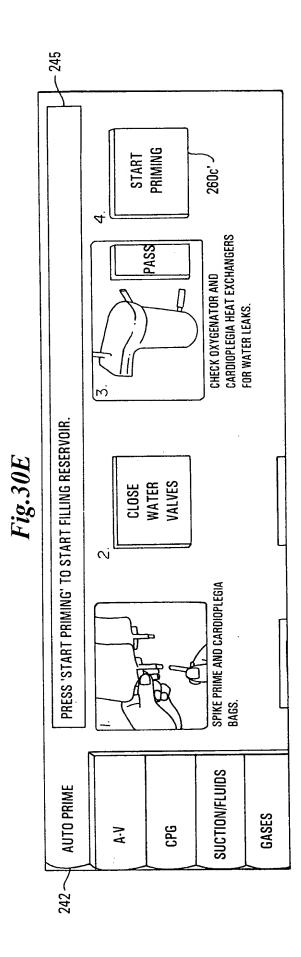
Attorney: Terry L. Wiles Telephone: (612) 334-8992



3910

Spiel 5//16 Serial No. 09/963,878 Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US
Attorney: Terry L. Wiles
Telephone: (612) 334-8992

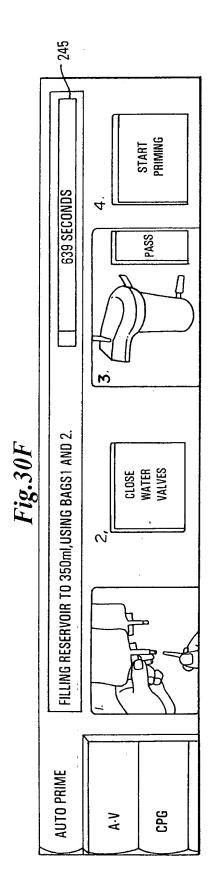




SHEET 58/76

Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

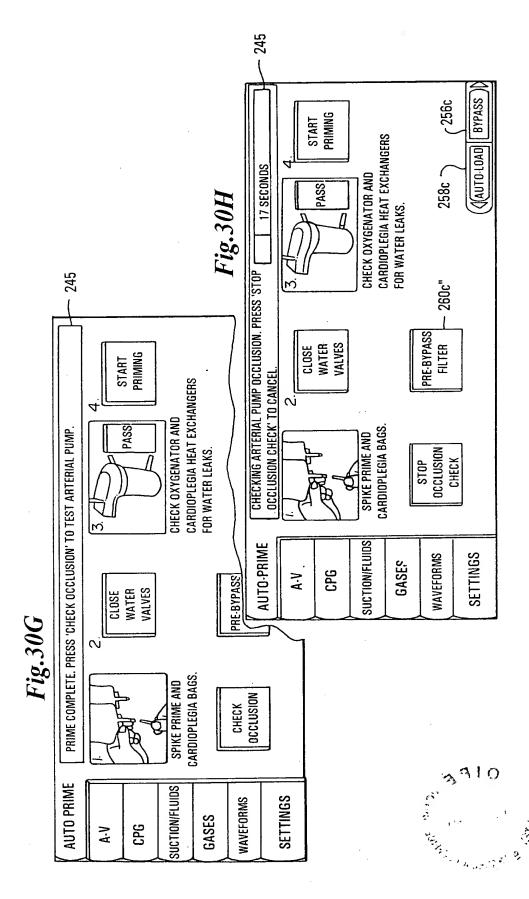
Telephone: (612) 334-8992



SHEE 1 59/16 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

Attorney: Terry L. Wiles Telephone: (612) 334-8992

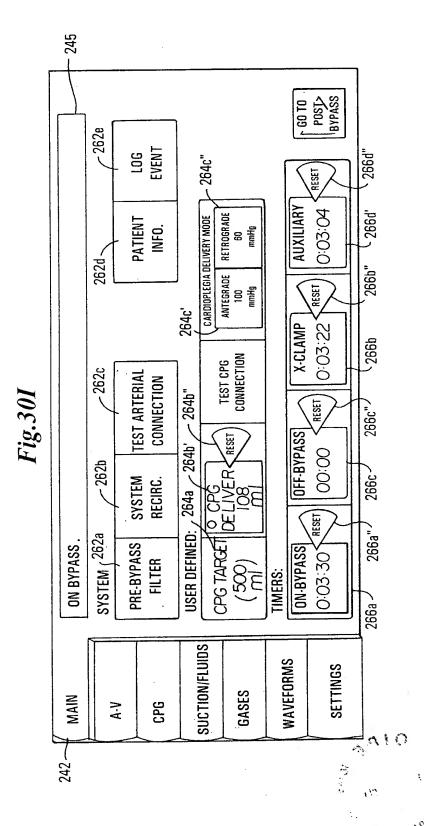


SHEET 60/76

Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

Telephone: (612) 334-8992



SHEET 61/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al.
Attorney Docket: CV0290US

Attorney: Terry L. Wiles Telephone: (612) 334-8992

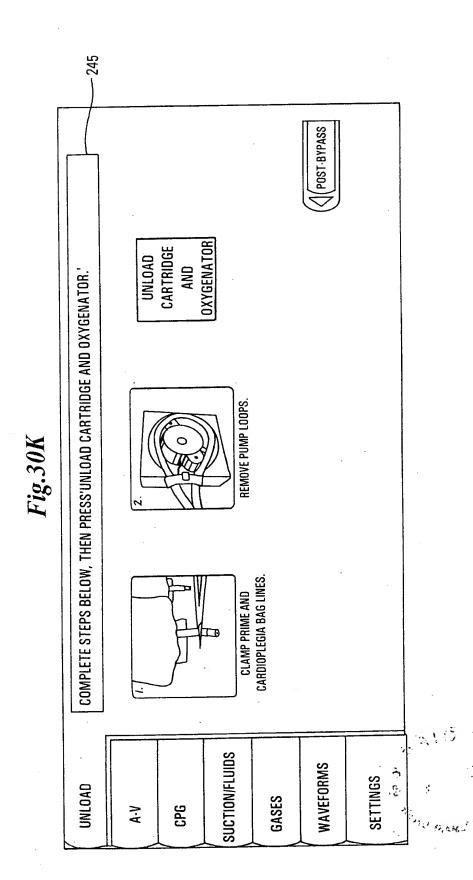
RETURN TO Seypass MOVE TO Unloading LOG EVENT RESET 0:03:47 AUXILIARY PATIENT Info. TO BAGS FILL PATIENT: START ARTERIAL TO FLOW DOWN PATIENT LINE. RESET 0:06:34 X-CLAMP DELIVER ml **TEST ARTERIAL** CONNECTION RESET CHASE BOLUS mi OFF-BYPASS ~ 264d" 00:45 SYSTEM Recirc. USER DEFINED: , 264d' DELIVER 0 ml PRE-BYPASS ON-BYPASS 0:06:57 FILTER BOLUS FILL PATIENT **TIMERS**: SYSTEM Ē SUCTION/FLUIDS WAVEFORMS SETTINGS GASES MAIN A-V CPG

Fig.30J

SHEET 62/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US

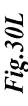
Attorney: Terry L. Wiles Telephone: (612) 334-8992

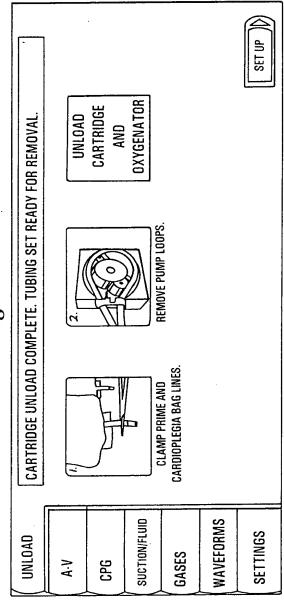


SHEET 63/76

Serial No. 09/963,878 Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US
Attorney: Terry L. Wiles
Telephone: (612) 334-8992

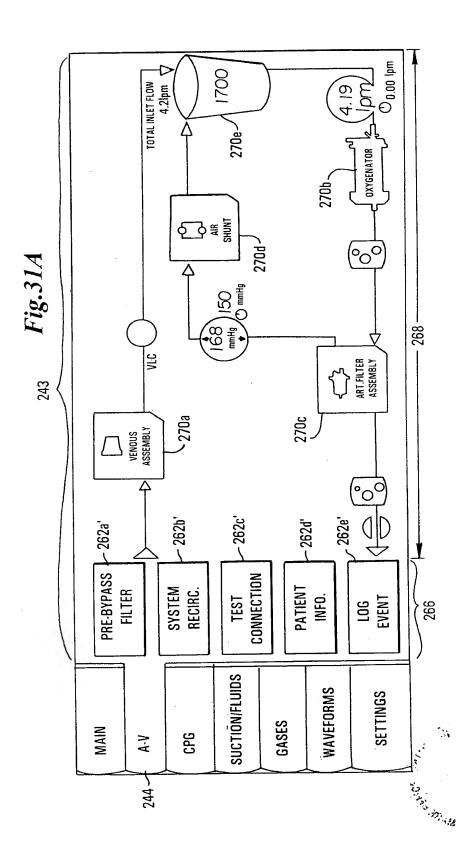






SHEE: 04/10 Serial No. 09/963,878 Applicant: Bruce Ellingboe et al.

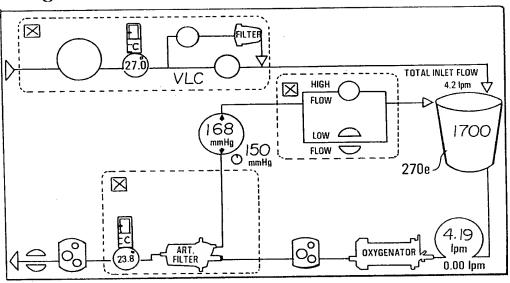
Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

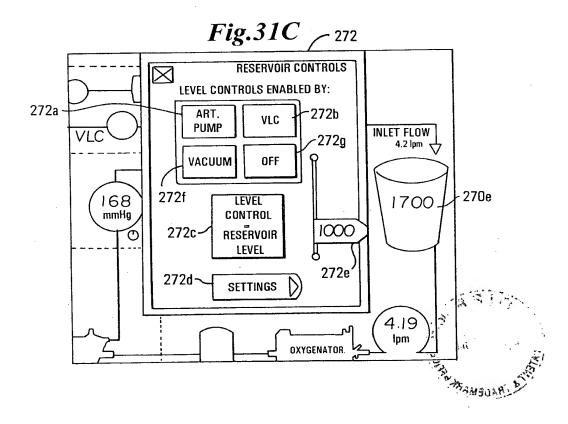


Snrt 1 65/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

Fig.31B





SHEE 1 00/10 Serial No. 09/963,878 Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992



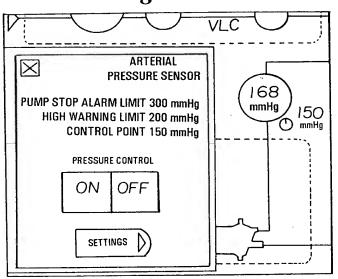


Fig.31E

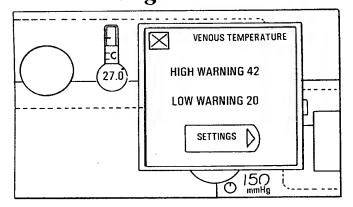
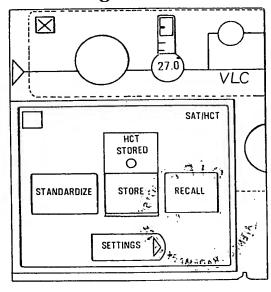
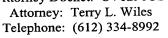
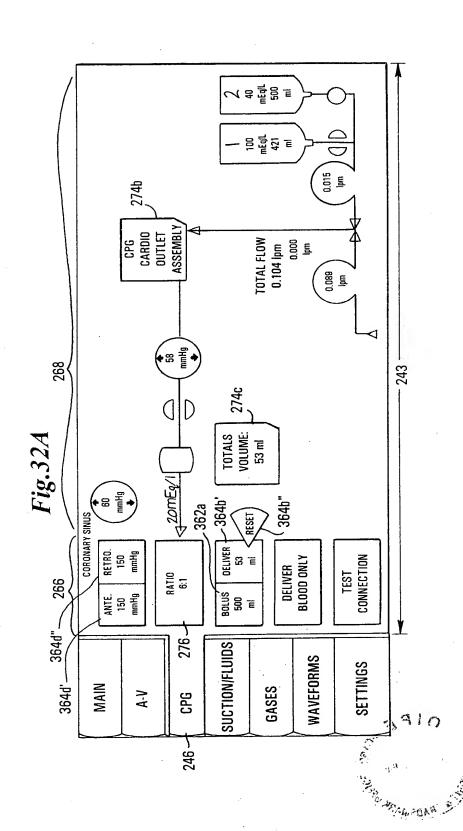


Fig.31F



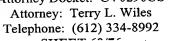
Smedi 07/76 Serial No. 09/963,878 Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US





SHEET 68/76 Serial No. 09/963,878

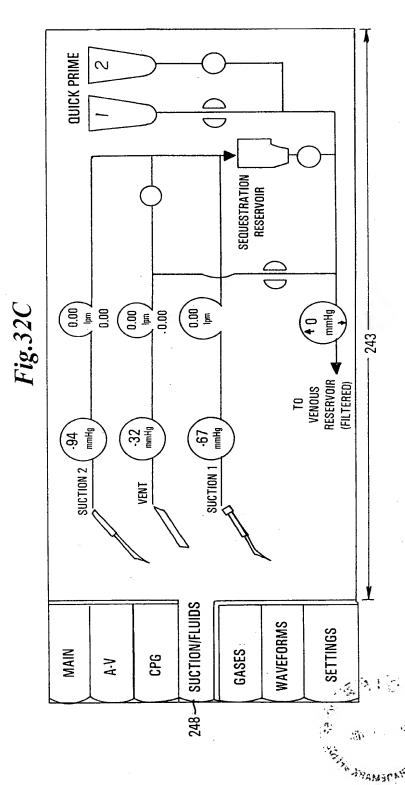
Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US



CN 含 를 음 트 100 mEq/L 409 BUBBLE TRAP HEATER TOTAL FLOW 0.104 lpm 0.000 lpm 0.090 Iph **◆**88 ∰ • Fig.32B TOTAL VOLUME
137 ml
TOTAL K+
9 mEq
TOTAL CRYSTALLOID
19 mEqL (RESET) CORONARY SINUS DELIVER 137 RETRO. 150 mm/kg TEST CONNECTION DELIVER Blood only RATIO 6,4:1 BOLUS 500 ANTE. 150 mmHg 276 SUCTION/FLUIDS WAVEFORMS SETTINGS GASES MAIN CPGA٠٧

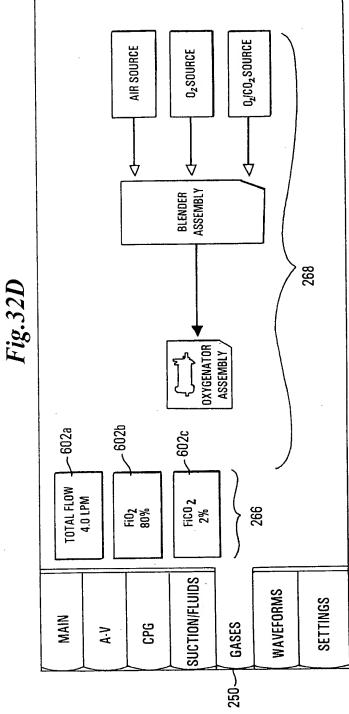
SHEE 1 69//6 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992



SELLE 1 /U//0 Serial No. 09/963,878 Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992

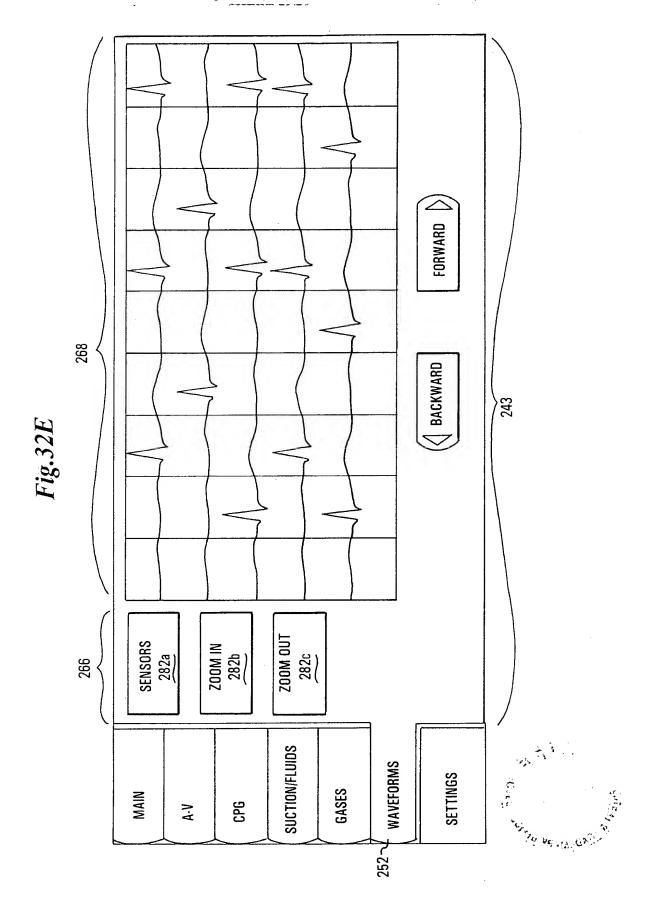


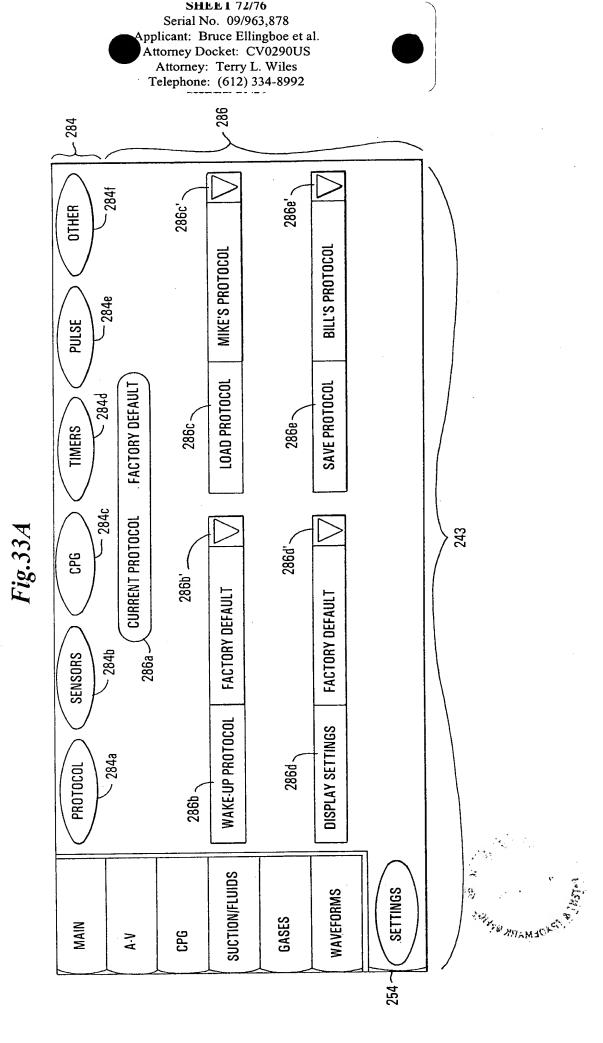
Serial No. 09/963,878

Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US

Attorney: Docket: CV029008
Attorney: Terry L. Wiles
Telephone: (612) 334-8992





SHEE1 73/76

Serial No. 09/963,878
Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US
Attorney: Terry L. Wiles
Telephone: (612) 334-8992

Fig.33B

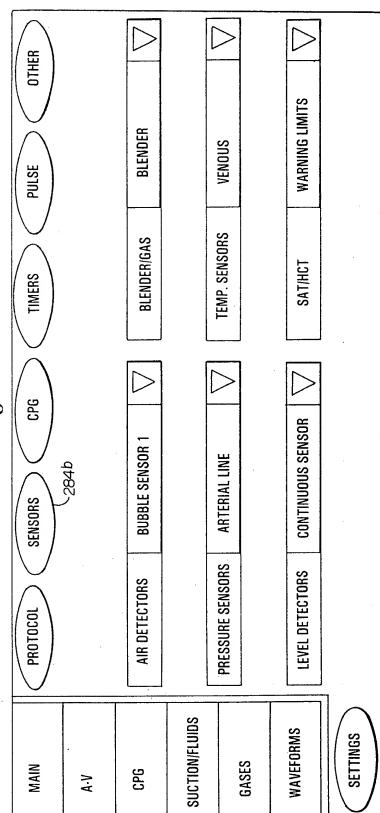


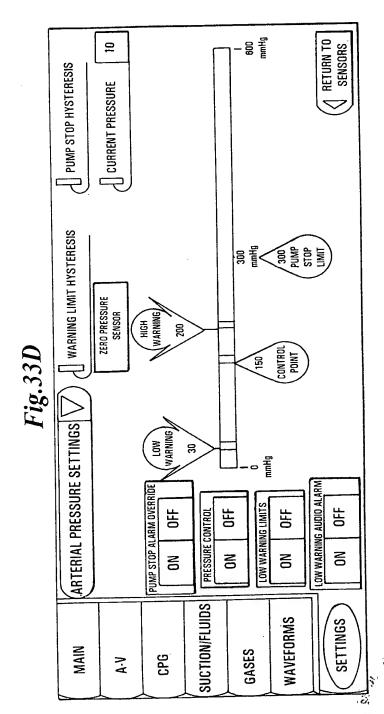
Fig.33C

\triangleright						
BUBBLE SENSOR 1	BUBBLE SENSOR 1		BUBBLE SENSUR 2		CPG BUBBLE DETECTOR	
AIR DETECTORS		PRESSURE SENSORS				

SHEET 74/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles

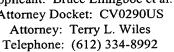
Telephone: (612) 334-8992



3910

SHEET 75/76 Serial No. 09/963,878

Applicant: Bruce Ellingboe et al. Attorney Docket: CV0290US Attorney: Terry L. Wiles



RETURN TO SENSORS A CURRENT TEMPERATURE 32 **VENOUS TEMPERATURE SETTINGS** H 넁 OFF LOW WARNING LIMIT HIGH WARNING LIMIT 8 8 8 SUCTION/FLUIDS WAVEFORMS SETTINGS GASES MAIN CPG A.V

A ANSWARE CONTRACTOR

SHEET '/6/76

Serial No. 09/963,878
Applicant: Bruce Ellingboe et al.

Attorney Docket: CV0290US Attorney: Terry L. Wiles Telephone: (612) 334-8992



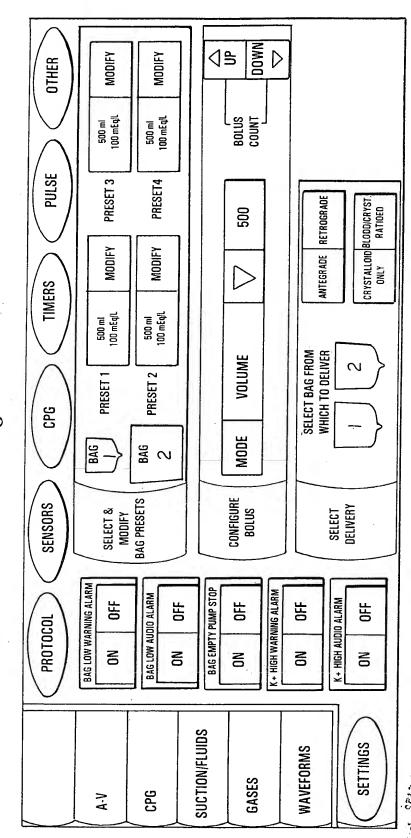


Fig. 33F